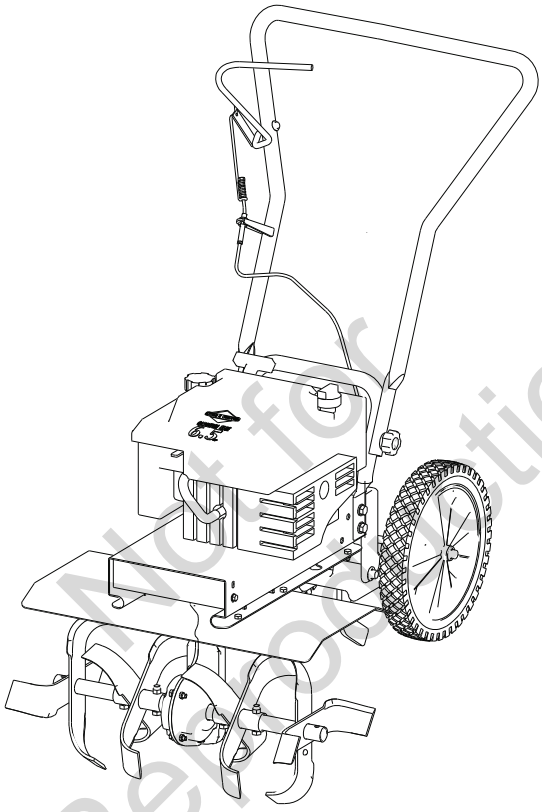
Simplicity® SNAPPER®

OPERATOR'S MANUAL



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Front Tine Tiller

Mfg. No.	Description
1695578	5521FT, 5.5 TP Front Tine Tiller
1695584	5521FT, 5.5 TP Front Tine Tiller
1695921	5521FT, 5.5 TP Front Tine Tiller

1695615
Revision B

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MODEL IDENTIFICATION

Record your model number, manufacturer number and serial number in the space provided for easy reference. The model and manufacturer numbers can be found on the unit I.D. plate located on the unit's left engine mount. Refer to the Engine Owner's Manual for location of engine serial number.

If you have a service problem requiring special assistance, contact a local dealer for help.

ROTOTILLER REFERENCE DATA	
Model Description/Number	
M/N (Manufacturer's Number)	S/N (Serial Number)
Dealer Name	Date Purchased
ENGINE REFERENCE DATA	
Engine Make/Model	Engine ID/Serial Number

⚠ WARNING

You must read, understand and comply with all safety and operating instructions in this manual before attempting to setup and operate your rototiller.

Failure to comply with all safety and operating instructions can result in loss of machine control, serious personal injury to you and/or bystanders, and risk of equipment and property damage. The triangle in the text signifies important cautions or warnings which must be followed.

⚠ WARNING

Engine exhaust from this product contains chemicals known, in certain quantities, to cause cancer, birth defects, or other reproductive harm.

Safety Rules

OWNER'S RESPONSIBILITY

Accurate assembly and safe and effective use of the rototiller is the owner's responsibility.

- Read and follow all safety instructions.
- Carefully follow all assembly instructions.
- Maintain the tiller according to directions and schedule included in this Earthquake operator's manual.
- Ensure that anyone who uses the tiller is familiar with all controls and safety precautions.

SPECIAL MESSAGES

Your manual contains special messages to bring attention to potential safety concerns, machine damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

NOTE: General information is given throughout the manual that may help the operator in the operation or service of the machine.

IMPORTANT SAFETY PRECAUTIONS

Please read this section carefully. Operate the tiller according to the safety instructions and recommendations outlined here and inserted throughout the text. Anyone who uses this tiller must read the instructions and be familiar with the controls. Your tiller is equipped with a safety device that enables you to stop the wheels and tines quickly in an emergency. Learn how the drive safety control lever operates and how to control the tiller at all times.

This symbol points out important safety instructions which if not followed could endanger your personal safety. Read and follow all instructions in this manual before attempting to operate this equipment.

- Do not allow children to operate this rototiller. Keep small children away from the area being tilled. Do not allow adults to operate the tiller without proper instruction.

PREPARATION

- Dress appropriately when operating the tiller. Always wear sturdy footwear. Never wear sandals, sneakers, or open shoes, and never operate the tiller with bare feet. Do not wear loose clothing that might get caught in moving parts.
- Carefully inspect the area to be tilled and remove all foreign objects. Do not till above underground water lines, gas lines, electric cables, or pipes. Do not operate the tiller in soil with large rocks and foreign objects which can damage the equipment.
- Disengage all clutches and leave all control levers in the neutral position before starting the engine.
- Handle fuel with care; it is highly flammable.
  a. Use an approved fuel container.
  b. Never add fuel to a running engine or hot engine.

DANGER

DANGER INDICATES A SERIOUS INJURY OR FATALITY WILL RESULT IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.

WARNING

WARNING INDICATES A SERIOUS INJURY OR FATALITY COULD RESULT IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.

CAUTION

CAUTION INDICATES YOU CAN OR YOUR EQUIPMENT CAN BE HURT IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED.

IMPORTANT

IMPORTANT INDICATES HELPFUL INFORMATION FOR PROPER ASSEMBLY, OPERATION, OR MAINTENANCE OF YOUR EQUIPMENT.

WARNING

YOU MUST READ, UNDERSTAND AND COMPLY WITH ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO SETUP AND OPERATE YOUR ROTOTILLER.

FAILURE TO COMPLY WITH ALL SAFETY AND OPERATING INSTRUCTIONS CAN RESULT IN LOSS OF MACHINE CONTROL, SERIOUS PERSONAL INJURY TO YOU AND/OR BYSTANDERS, AND RISK OF EQUIPMENT AND PROPERTY DAMAGE. THE TRIANGLE IN THE TEXT SIGNIFIES IMPORTANT CAUTIONS OR WARNINGS WHICH MUST BE FOLLOWED.

CALIFORNIA PROPOSITION 65 WARNING

ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.

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c. Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.

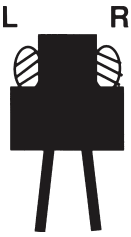
d. Replace gasoline cap securely and clean up spilled fuel before restarting.

- Never attempt to make any adjustments while the engine is running.

OPERATION

- Do not operate the tiller under the influence of alcohol or drugs.
- Never operate the tiller without guards, covers, and hoods in place.
- Keep hands, feet, and clothing away from rotating parts. Keep clear of tiller tines at all times.
- Tines rotate when tiller is engaged, tines rotate when the drive safety control lever is pulled down. Releasing the drive safety control lever to ***neutral*** stops the tines.
- Use extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the tiller for any damage, and repair the damage before restarting and operating the tiller.
- If vegetation clogs the tines, **STOP THE ENGINE AND DISCONNECT THE SPARK PLUG WIRE** before removing vegetation by hand.
- Engine muffler will be hot from operation. Do not touch it with bare skin or a severe burn may result.
- If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Do not run the engine indoors; exhaust fumes are deadly.
- Do not overload the machine capacity by attempting to till too deep at too fast a rate.
- Never allow bystanders near the unit.
- Never operate the tiller without good visibility or light.
- Be careful when tilling in hard ground. The tines may catch in the ground and propel the tiller forward. If this occurs, let go of the handlebars and do not restrain the machine.
- Take all possible precautions when leaving the machine unattended. Disengage all control levers, stop the engine, wait for all moving parts to stop, and make certain guards and shields are in place.
- When leaving the operating position for any reason:
  - shut off the engine.
  - wait for all moving parts to stop.

IMPORTANT



THE RIGHT AND LEFT SIDES OF YOUR ROTOTILLER ARE DETERMINED FROM THE OPERATING POSITION AS YOU FACE THE DIRECTION OF FORWARD TRAVEL.

ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.

MAINTENANCE AND STORAGE

- Keep machine, attachments, and accessories in safe working condition.
- Check shear bolts, engine mounting bolts, and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- To prevent accidental starting, always disconnect and secure the spark plug wire from the spark plug before performing tiller maintenance.
- Never run the engine indoors. Exhaust fumes are deadly.
- Always allow muffler to cool before filling fuel tank.
- Never store equipment with gasoline in the tank inside a closed building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any building.
- Always refer to the operator's guide instructions for important details if the tiller is to be stored for an extended period.

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Safety Rules

SAFETY DECALS

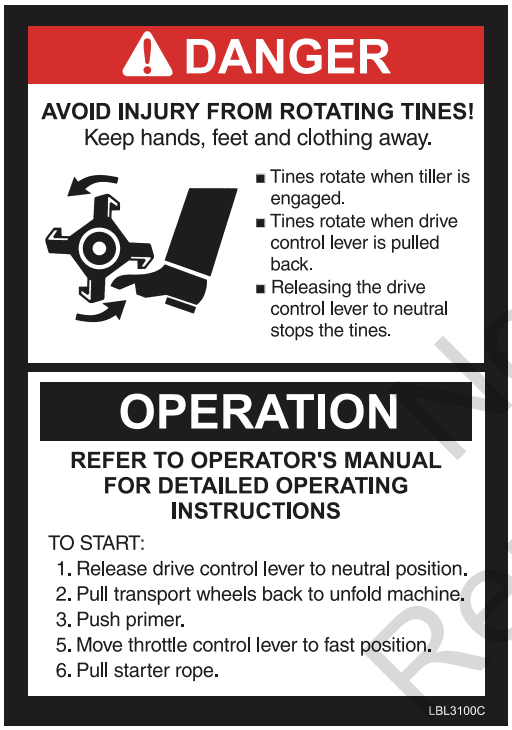
This rototiller unit has been designed and manufactured to provide you with the safety and reliability you would expect from an industry leader in outdoor power equipment manufacturing.

Although reading this manual and the safety instructions it contains will provide you with the necessary basic knowledge to operated this equipment safely and effectively, we have placed several safety labels on the tiller to remind you of this important information while you are operating the unit.

These important safety labels are illustrated below, and are shown here to help familiarize you with the location and content of the safety messages you will see as you perform normal tilling operations. Please review these labels now. If you have any questions regarding their meaning or how to comply with these instructions, reread the complete safety instruction text on the preceding pages, or contact your local dealer.

Should any of the safety labels become unreadable because of being worn, faded, or otherwise damaged during the use of your tiller, please use the part number information provided to order a replacement label from your local authorized dealer.

The safety labels are easily applied, and will act as a constant visual reminder to you, and others who may use the equipment. Follow the safety instructions necessary for safe, effective operation of your rototiller.


DANGER
AVOID INJURY FROM ROTATING TINES!
Keep hands, feet and clothing away.
■ Tines rotate when tiller is engaged.
■ Tines rotate when drive control lever is pulled back.
■ Releasing the drive control lever to neutral stops the tines.
OPERATION
REFER TO OPERATOR'S MANUAL FOR DETAILED OPERATING INSTRUCTIONS
TO START:
1. Release drive control lever to neutral position.
2. Pull transport wheels back to unfold machine.
3. Push primer.
5. Move throttle control lever to fast position.
6. Pull starter rope.
LBL3100C

Part No. 1737283
TINES DANGER/OPERATION
Hood Decal

WARNING
AVOID SERIOUS INJURY OR DEATH
• Read operator's manual(s).
• Know the location and function of all controls.
• Keep all shields and guards in place and working while running.
• Never operate tiller when children are around.
• Dress appropriately --- wear sturdy footwear.
• Carefully inspect area to be tilled --- remove large rocks and other foreign objects.
• Do NOT till above underground electric, water, gas, or other utility lines and pipes.
• STOP THE ENGINE AND DISCONNECT THE SPARK PLUG WIRE before removing debris or servicing unit.
• When leaving the operating position for any reason:
--- shut off the engine.
--- wait for all moving parts to stop.
LBL821B

Part No. 1737284
HOOD WARNING
Hood Decal

WARNING!
DO NOT START ENGINE UNLESS BELT COVER IS ATTACHED. KEEP HANDS, FEET, AND CLOTHING AWAY FROM MOVING BELTS AND PULLEYS. FAILURE TO COMPLY COULD RESULT IN INJURY. SEE OWNER'S MANUAL FOR FULL SAFETY INSTRUCTIONS.
LBL516C

Part No. 1737285
WARNING
Belt Cover Decal

Part No. 1737287
WARNING
Pivot Mount Decal

Part No. 1737288
CLUTCH ENGAGE
Handlebar Decal

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UNPACK TILLER AND ASSEMBLE

1. Open top of carton and remove handlebar assembly.
2. Find parts packet. Parts packet contains:

   6- 5/16-18 x 1-3/4" bolts
   6- 5/16" spring lockwashers
   2- hand knobs
   4- locknuts
   2- 1/2" push nuts
   1- detent pin

3. Cut open end of carton and remove machine:
   a. Install wheels on each end of axle, tap on push nuts with a hammer.
   b. Assemble tines to unit, inside tines first. Sharp edge of tine will be away from operator at top or face down at front of machine.
   c. Outside tines have two positions- wide 21" & narrow 16". For narrow width - assemble with short side of tine holder pipe towards center of machine.
   d. For wide width - move left tine to right side and right to left side. Assemble with long half of tine pipe towards machine.
   e. Slide top handle of handlebar over lower loop. Put 5/16-18 x 1-3/4" bolts thru both holes from inside out, put on 5/16" spring lockwashers and tighten with hand knobs.
   f. Check upper and lower jam nuts for tightness. See page 9, Belt Tension Adjustment.
   g. Add and check engine oil.

INSTALL DEPTH REGULATOR LEVER

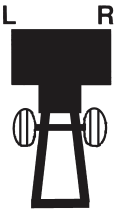
1. Install the depth regulator lever through hole in bracket from the bottom up with curve to rear of unit and secure with detent pin.

FILL ENGINE CRANKCASE

1. Add oil according to engine manual. **Do not overfill.** Use a clean, high quality detergent oil. Container must be marked A.P.I. Service SF - SJ. Use no special additives with recommended oils. **Do not mix oil with gasoline.** Oil level must be full. Check the oil level by removing oil fill plug. Oil level should be up to the bottom of the fill plug opening.
2. Always check oil level before starting engine. Refer to engine manual for capacity and type of oil to use.

IMPORTANT

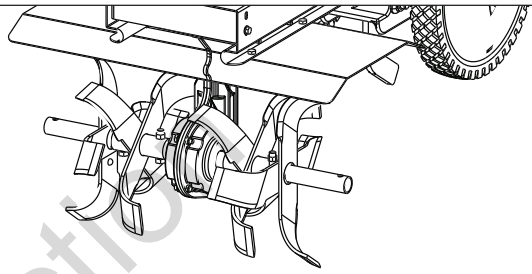
THE RIGHT AND LEFT SIDES OF YOUR ROTOTILLER ARE DETERMINED FROM THE OPERATING POSITION AS YOU FACE THE DIRECTION OF FORWARD TRAVEL.



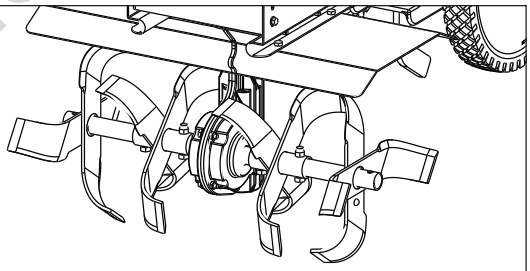
ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.

⚠ CAUTION

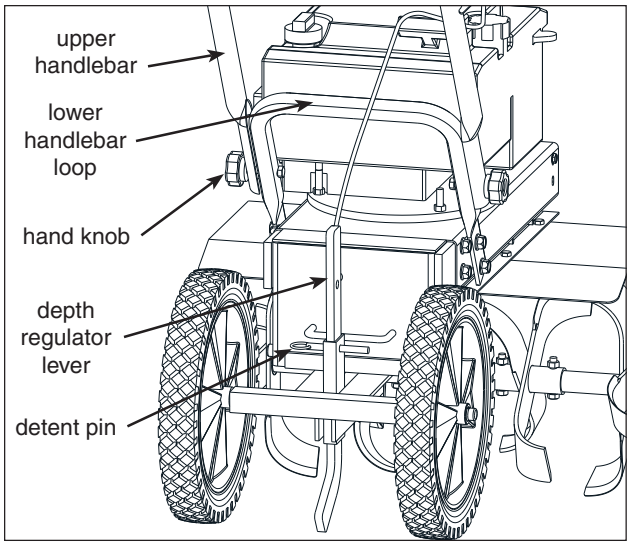
DO NOT TRY TO LIFT THE ROTOTILLER FROM THE CARTON.



NARROW TINE WIDTH



WIDE TINE WIDTH



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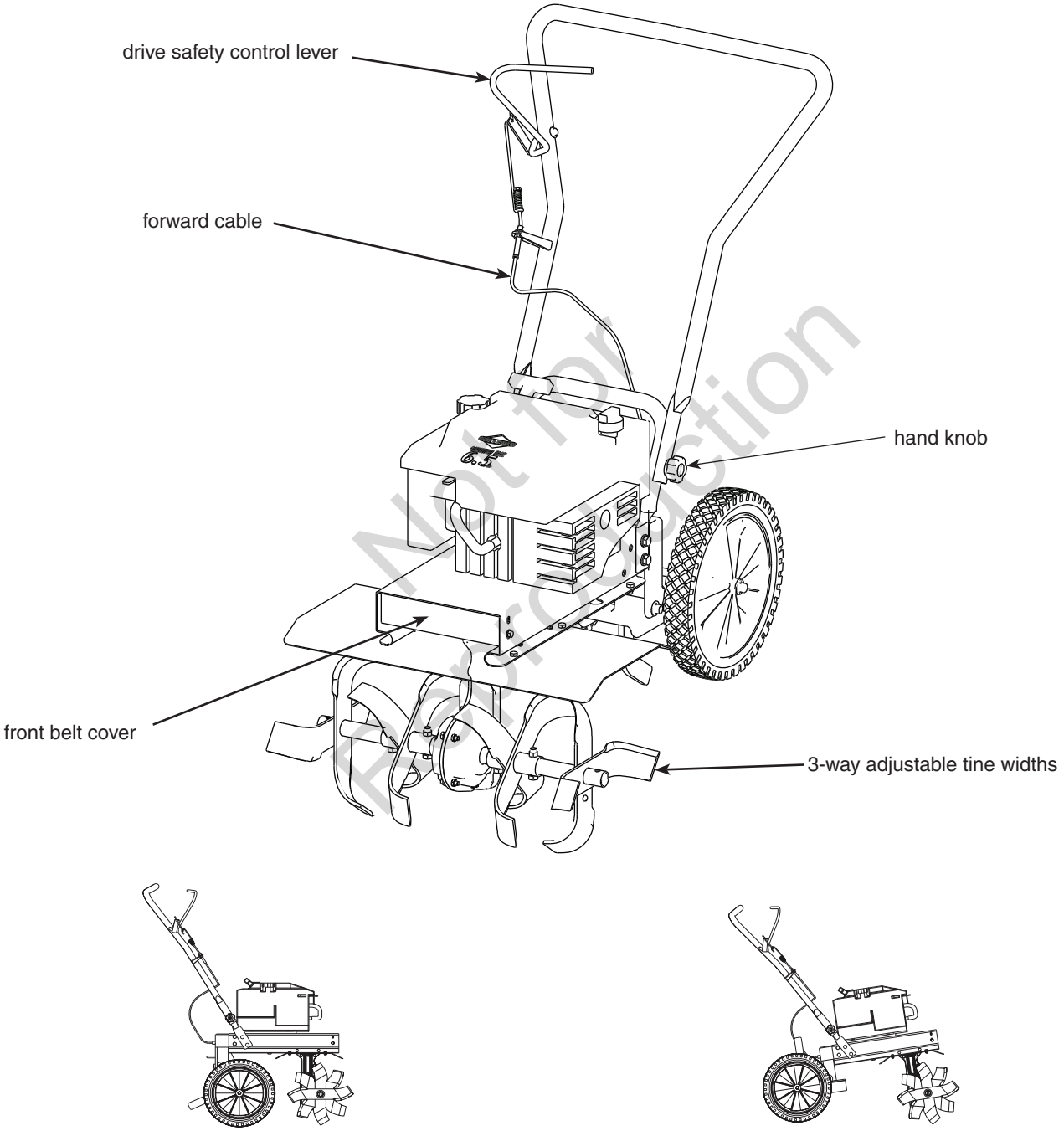
Features

The advantage of the **Simplicity/Snapper™ gear drive rototiller** over other front tine tillers, is the exclusive unfolding and flexible drag bar. This gives the **gear drive tiller** its stability and its versatility. For easy transport, fold the wheels under the engine. During operation, the wheels unfold back and the drag bar folds down. The long length between the tines and the drag bar make this the most comfortable front tine tiller on the market.



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DRIVE SAFETY CONTROL LEVER

Engage tines into forward, releasing returns machine to neutral.

Pulling down on drive safety control lever engages the tines. Releasing the drive safety control lever disengages the tines to a neutral position.

BELT TENSION ADJUSTMENT

Proper belt tension is critical to good performance. After 1/2 hour of operation, all cables may have to be adjusted due to initial stretch. Thereafter, check tension after every 2 hours of operation.

To increase belt tension:

1. Loosen upper jam nut. Turn nut up cable in 1/8" increments.
2. Tighten lower jam nut.
3. Check adjustment.

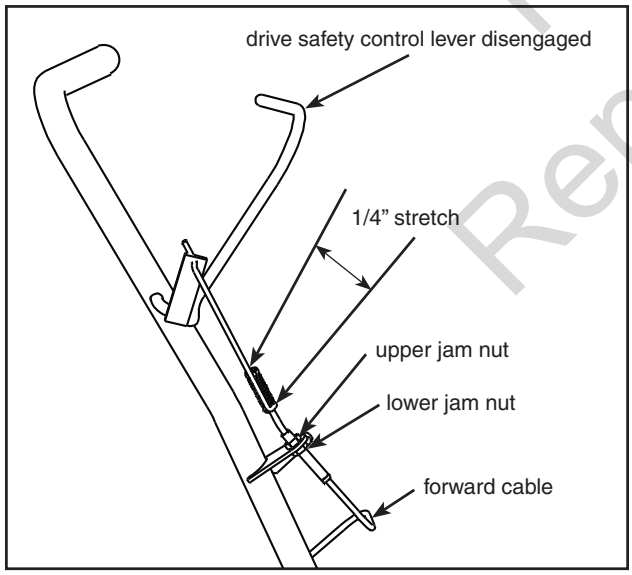
This procedure can be repeated until conduit adjustment bolts have no more adjustment left. If no more adjustment can be made, belt may have to be replaced.

DEPTH REGULATOR LEVER

Tilling depth is controlled by the height of the depth regulator lever.

To adjust tilling depth.

1. Remove detent pin.
2. Raise the depth regulator lever to position tines at chosen tilling depth.
3. Align hole in depth regulator lever with hole in depth regulator bracket and replace detent pin.



Model 5521 Handlebar

⚠ CAUTION

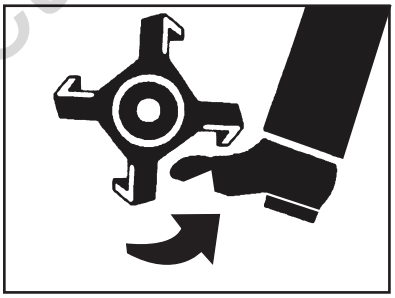
THIS INFORMATION IS PROVIDED HERE ONLY TO INTRODUCE THE CONTROLS. DO NOT START THE ENGINE AT THIS TIME. STARTING AND OPERATING INSTRUCTIONS ARE GIVEN ON PAGE 10. PLEASE READ THIS SECTION AND ALL OPERATING AND SAFETY INSTRUCTIONS BEFORE STARTING YOUR TILLER.

- **AS A SAFETY PRECAUTION, THE DRIVE SAFETY CONTROL LEVER WILL NOT LOCK IN THE FORWARD POSITION.**
- **TO STOP THE WHEELS AND TINES AT ANY TIME RELEASE THE DRIVE SAFETY CONTROL LEVER.**

⚠ WARNING

ENGINE SHOULD BE OFF BEFORE ADJUSTING ANY CONTROLS.

DO NOT ADJUST TILLING DEPTH UNLESS DRIVE SAFETY CONTROL LEVER IS RELEASED TO THE NEUTRAL POSITION.



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Operation

PRE-START INSPECTION

1. Make sure all safety guards are in place and all nuts and bolts are secure.
2. Check oil level in engine crankcase. See your engine manual for procedure and specifications.
3. Inspect air cleaner for cleanliness. See your engine manual for procedure.
4. Check the fuel supply. Fill the fuel tank no closer than 1 inch from top of tank to provide space for expansion. See your engine manual for fuel recommendations.
5. Be sure spark plug wire is attached and spark plug is tightened securely.
6. Check position of wheels.
7. Check depth regulator lever position.
8. Examine underneath and around engine for signs of oil or fuel leaks.
9. Inspect fuel hoses for tightness and fuel seepage.
10. Look for signs of engine damage.
11. Remove excessive debris from muffler area and recoil starter.

START-UP

The controls required to start and run the rototiller are located on the engine and are marked “Choke” and “Throttle”.

A more detailed description of engine operation and all related precautions and procedures can be found in the engine manufacturer’s manual that accompanies each tiller.

COLD STARTS

1. Move choke lever to full choke position.
2. Move throttle lever to “start”.
3. Pull starting rope out slowly one time and allow to return normally.
4. Pull starting rope out rapidly, and allow rope to return normally.
5. When engine starts, gradually move choke lever to “no choke” position and increase throttle speed.

RESTARTING A WARM ENGINE

Restarting an engine that is already warm from previous running does not normally require use of the choke.

1. Move throttle lever to “start” position.
2. Pull starting rope out rapidly until engine starts. Allow rope to return normally. Repeat until engine starts.
3. Adjust throttle speed to “high” for best tiller action.

IMPORTANT

ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.

PRACTICE OPERATING THE CONTROLS AND TILLER WITH TINES OUT OF GROUND BEFORE BEGINNING TO TILL. IT IS IMPORTANT THAT YOU KNOW HOW TO USE THE TILLER PROPERLY, KEEP CONTROL AT ALL TIMES, STOP THE TINES AND WHEELS FROM TURNING, AND STOP THE ENGINE IF NECESSARY. IF YOU DO NOT KNOW HOW TO DO THESE THINGS, READ THE CONTROLS AND SAFETY SECTIONS BEFORE PROCEEDING.

⚠ CAUTION

PLEASE DO NOT START YOUR TILLER UNTIL YOU HAVE READ THE MANUAL THAT CAME WITH YOUR ENGINE, AND THE SECTIONS IN THIS MANUAL TITLED CONTROLS AND SAFETY. IF YOU HAVE READ THESE, FOLLOW THE STEPS BELOW TO START YOUR TILLER. ALWAYS PERFORM THIS PRE-START CHECKLIST BEFORE STARTING THE ENGINE.

⚠ WARNING

GASOLINE IS HIGHLY FLAMMABLE AND MUST BE HANDLED WITH CARE. NEVER FILL THE TANK WHEN THE ENGINE IS HOT OR RUNNING. ALWAYS MOVE OUTDOORS TO FILL THE TANK.

TEMPERATURE OF MUFFLER AND NEAR BY AREAS MAY EXCEED 150° F. AVOID THESE AREAS.

DO NOT MOVE CHOKE CONTROL TO CHOKE TO STOP ENGINE. BACKFIRE OR ENGINE DAMAGE MAY OCCUR.

TO STOP THE ENGINE AT ANY TIME, MOVE THROTTLE CONTROL TO THE OFF POSITION. TO STOP TINES AT ANY TIME, RELEASE DRIVE SAFETY CONTROL LEVER TO THE NEUTRAL POSITION.

ALWAYS RELEASE DRIVE SAFETY CONTROL LEVER TO THE NEUTRAL POSITION BEFORE ADJUSTING THE DEPTH OF THE REGULATOR LEVER.

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OPERATING SPEED

For normal tilling, set the throttle lever to “fast”.

SHUTTING DOWN

To stop the engine at any time, move throttle control to the off position. To stop wheels and tines at any time, release the drive safety control lever to the neutral position.

TILLING

1. Adjust the depth regulator lever to desired tilling depth.

   NOTE: Raise depth regulator lever up one hole at a time, testing tiller operation after each raise. Raising depth regulator lever too high can result in loss of control of tiller!

2. Move the throttle control to ***fast***.
3. Place the tiller in motion by pushing down on the drive safety control lever--this will engage the tines.

⚠ WARNING

EXTREME CAUTION MUST BE TAKEN IN SELECTING TILLING DEPTH. IF YOU ATTEMPT TO TILL TOO DEEPLY FOR SOIL CONDITIONS, THAT IS, WITH THE DRAG STAKE IN TOO HIGH A POSITION, LOSS OF CONTROL COULD RESULT.

IF REMOVING MATERIAL FROM THE TINES BY HAND, STOP ENGINE AND REMOVE SPARK PLUG WIRE FIRST.

⚠ DANGER

ENGINE AND SURROUNDING PARTS BECOME EXTREMELY HOT DURING NORMAL USE AND WILL CAUSE SERIOUS BURN INJURIES IF TOUCHED BEFORE THE ENGINE HAS COOLED.

ALLOW ENGINE TO COOL COMPLETELY BEFORE TOUCHING THESE HOT SURFACES.

ALWAYS KEEP HANDS AND FEET CLEAR OF ROTATING MACHINE PARTS.

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Maintenance

MAINTENANCE SCHEDULE

Your rototiller has been designed and produced by the industry's leading manufacturer of outdoor power equipment to provide you with years of reliable operation.

Keeping your tiller in top running condition will prolong its life, and help you obtain optimum performance.

Please read this normal care schedule, and note the recommended care operating intervals to extend the life of your unit.

Maintenance Operation	Page	Before Each Use	50 hours or Every Season
Change belt tension	13	X	
Change forward belt	13		X
Engine maintenance	14	X	X
Check or fill engine crankcase	14	X	2
Clean tine axle shaft	14	X	
Lubrication	14		X
Check throttle control adjustment	-		1

EM = See engine manual

1 Adjust throttle control after first 3 hours of operation or if engine is hard to start or run-on occurs.

2 Change oil after first 5-8 hours of use, then after every 50 hours or every season. Change oil every 25 hours when operating under heavy load or in high temperatures.

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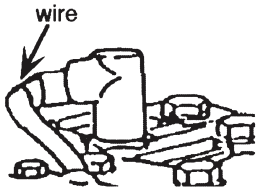
SERVICING THE ROTOTILLER

The following information will help you make the necessary checks and perform the procedures required to follow the normal care recommendations made for your rototiller unit.

If you prefer, your local authorized dealer can make these checks and perform the required procedures for you.

⚠ WARNING

To prevent accidental starting:



Engine must be turned off and cool, and spark plug wire must be removed and secured from spark plug before checking and adjusting engine or equipment.

CHECK BELT TENSION

Belt tension may decrease over time. It must be adjusted within the first half hour of operation, and checked after every two hours of operation. Proper adjustment will assure long belt life. Too much or too little belt tension will cause premature belt failure. To check and adjust the forward belt tension:

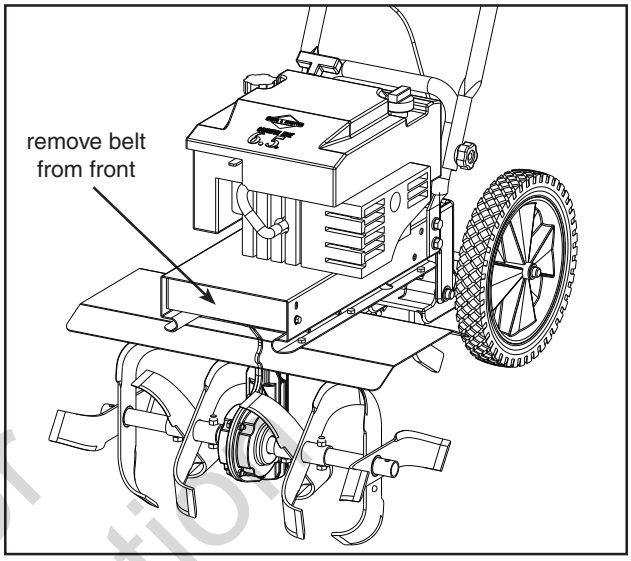
1. Turn off engine. Engine must be cool.
2. Remove spark plug wire from spark plug and secure.
3. With drive safety control lever in the neutral position, measure length of spring when in its relaxed state.
4. Pull down on drive safety control lever and measure length of spring when compressed. Ideal length would be 1/4" shorter.

CHANGE FORWARD BELT

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire from spark plug and secure.
3. Remove front belt cover.
   - remove the belt from the engine pulley:
     - gently pull the engine recoil rope to rotate the pulley.
     - with the pulley turning, force the belt out of the V-groove.
     - slide the belt free of the engine pulley.
     - pull the belt down and out of the way.
     - push the bolt forward and out front of machine.
   - install new belt:
     - place belt in transmission pulley groove.
     - gently pull the engine recoil rope to rotate the pulley while forcing the belt into the V-groove.
4. Replace front belt cover.
5. Attach spark plug wire.

⚠ WARNING

CHECK FORWARD BELT TENSION REGULARLY. TOO MUCH OR TOO LITTLE TENSION WILL CAUSE PREMATURE BELT FAILURE.



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Maintenance

ENGINE MAINTENANCE

Refer to the engine manual included in your parts packet for information on engine maintenance. Your engine manual provides detailed information and a maintenance schedule for performing the following tasks:

1. Check oil level before each use or after every 8 hours of operation.
2. Change oil after first 5-8 hours of operation. Change oil while engine is warm. Refill with new oil of recommended grade.
4. Check spark plug yearly or every 100 hours of operation.
5. Service air cleaner.
6. Keep engine and parts clean.
7. Check engine and equipment often for loose nuts and bolts, keep these items tightened.

CHECK OR FILL ENGINE CRANKCASE

1. Add oil according to engine manual. **Do not overfill.** Use a clean, high quality detergent oil. Container must be marked A.P.I. Service SF - SJ. Use no special additives with recommended oils. **Do not mix oil with gasoline.** Oil level must be full. Check the oil level by removing oil fill plug. Oil level should be up to the bottom of the fill plug opening on most engines.
2. Always check oil level before starting engine. Refer to engine manual for capacity and type of oil to use.

CLEAN TINE AXLE SHAFT

1. Turn off engine. Engine must be cool.
2. Remove spark plug wire and secure from spark plug.
3. Remove all vegetation, string, wire, and other material that may have accumulated on the axle between the inside set of tines and the seal on the transmission housing.
4. Replace spark plug wire.

LUBRICATION

Proper lubrication of moving mechanical parts is critical for proper care and maintenance. Oil the moving parts using a 30 weight oil.

IMPORTANT

ENGINE IS SHIPPED FROM FACTORY WITHOUT OIL. YOU MUST ADD ENGINE OIL BEFORE STARTING ENGINE.

ENGINE CAN OVERHEAT AND BECOME DAMAGED IF DEBRIS BLOCKS THE COOLING SYSTEM OR ROTATING SCREEN.

NEVER RUN ENGINE WITHOUT COMPLETE AIR CLEANER INSTALLED ON ENGINE.

⚠ CAUTION

DO NOT OPERATE TILLER BEFORE READING THE ENGINE MANUAL PROVIDED IN THE PARTS PACKET.

⚠ WARNING

TEMPERATURE OF MUFFLER AND NEAR BY AREAS MAY EXCEED 150° F. AVOID THESE AREAS.

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PREPARE FOR STORAGE

Follow the steps below to prepare your tiller for storage. Read your engine manual for detailed instructions on preparing the engine for storage.

1. Protect wheels and axles from rust:
   - Coat the axles lightly with axle grease.
2. Drain fuel system completely following engine manufacturer's instructions or add fuel stabilizer to prevent fuel from gumming up during extended storage period.
3. While engine is still warm, drain the oil from the engine. Refill with fresh oil of the recommended grade.
4. Clean external surfaces, engine and cooling fan.
5. Remove spark plug, pour one ounce of SAE 30 oil into spark plug hole.
6. Plug hole and pull starter cord slowly to distribute oil evenly in cylinder head area.
7. Reinstall spark plug.
8. Transport unit to a suitable storage location. If you have chosen to use a fuel stabilizer and have not drained the fuel system, follow all safety instructions storage precautions in this manual to prevent the possibility of fire from the ignition of gasoline fumes. Remember, gasoline fumes can travel to distant sources of ignition and ignite, causing risk of explosion and fire.
9. If there is any possibility of unauthorized use or tampering, remove the spark plug and store it in a safe place before storing the rototiller unit. Be sure to plug the spark plug hole to prevent foreign material from entering.

⚠ WARNING

DO NOT STORE TILLER IN AN UNVENTILATED AREA WHERE FUEL FUMES MAY REACH FLAME, SPARKS, PILOT LIGHTS OR AN IGNITED OBJECT. DRAIN FUEL OUTDOORS AWAY FROM ANY IGNITION SOURCES. USE ONLY APPROVED FUEL CONTAINERS.

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Truobleshooting and Repair

TROUBLESHOOTING GUIDE

While normal care and routine maintenance will extend the life of your rototiller, prolonged or constant use may eventually require that service be performed to allow it to continue operating properly. The troubleshooting guide below lists the most common problems, causes and remedies.

⚠ WARNING

PRACTICE SAFETY AT ALL TIMES. ENGINE MUST BE TURNED OFF AND ALLOWED TO COOL, AND SPARK PLUG WIRE MUST BE DISCONNECTED AND SECURED BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR.

FAILURE TO COMPLY WITH THIS SAFETY REQUIREMENT CAN RESULT IN SERIOUS PERSONAL INJURY TO YOU OR BYSTANDERS.

PROBLEM	REMEDY/ACTION
Engine will not start	• Add gas to gas tank. • Connect spark plug wire to spark plug • Throttle must be positioned at choke for a cold start
Engine runs rough, floods during operation	• Clean or replace air cleaner
Engine is hard to start	• Drain old fuel and replace with fresh. Use gas stabilizer at end of season • Make sure spark plug wire is securely attached to spark plug • Drive safety control lever must be released to neutral to start the engine
Engine misses or lacks power	• Raise the tines for shallow tilling by raising the depth regulator lever • Clean or replace air cleaner • Improper carburetor adjustment, take to authorized engine service center • Replace spark plug and adjust gap • Drain and refill gas tank and carburetor
Engine will not stop when throttle control is positioned at stop	• See engine manual to check and adjust throttle linkage
Tiller moves forward during starting	• Drive safety control lever must be released to neutral to start the engine
Tiller is difficult to control when tilling (machine jumps or lurches forward)	• Lower engine speed in hard ground • Raise the tines for shallower tilling by lowering the depth regulator lever
Belts squeal in neutral	• Adjust forward belt guide: - turn engine off and allow muffler to cool - disconnect spark plug wire and secure from spark plug - pull down on drive safety control lever - manually bend forward belt guide so there is 1/16 inch or less clearance between belt guide and belt - replace spark plug wire
Belts squeal in forward operation	• Turn engine off and allow muffler to cool • Disconnect spark plug wire and secure from spark plug • Release drive safety control lever to neutral • Adjust engage cable • Replace spark plug wire
Excessive heat build up in transmission/tine area during tilling	• Remove vegetation • Check transmission fluid and fill if needed

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Additional Technical Literature Available

Additional copies of this manual are available, as well as fully illustrated parts lists. These manuals show all of the product's components in exploded views (3D illustrations which show the relationship of parts and how they go together) as well as part numbers and quantities used. Important assembly notes and and torque values are also included.

Technical manuals can be downloaded from:
www.simplicitymfg.com
www.snapper.com.

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BRIGGS & STRATTON POWER PRODUCTS GROUP, L.L.C. OWNER WARRANTY POLICY

LIMITED WARRANTY

Briggs & Stratton Power Products Group, LLC will repair and/or replace, free of charge, any part(s) of the equipment that is defective in material or workmanship or both. Briggs & Stratton Corporation will repair and/or replace, free of charge, any part(s) of the Briggs and Stratton engine* (if equipped) that is defective in material or workmanship or both. Transportation charges on product submitted for repair or replacement under this warranty must be borne by purchaser. This warranty is effective for the time periods and subject to the conditions stated below. For warranty service, find the nearest Authorized Service Dealer using our dealer locator at www.BriggsandStratton.com or www.Murray.com.

There is no other express warranty. Implied warranties, including those of merchantability and fitness for a particular purpose, are limited to one year from purchase or to the extent permitted by law. Liability for incidental or consequential damages are excluded to the extent exclusion is permitted by law.

Some states or countries do not allow limitations on how long an implied warranty lasts, and some states or countries do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state or country to country.

WARRANTY PERIOD

Item	Consumer Use	Commercial Use:
Equipment	2 Years	90 Days
Engine*	2 Years	90 Days
Battery	1 Year	1 Year

The warranty period begins on the date of purchase by the first retail consumer or commercial end user, and continues for the period of time stated above. “Consumer use” means personal residential household use by a retail consumer. “Commercial use” means all other uses, including use for commercial, income producing or rental purposes. Once product has experienced commercial use, it shall thereafter be considered as commercial use for purposes of this warranty.

No warranty registration is necessary to obtain warranty on Briggs & Stratton products. Save your proof of purchase receipt. If you do not provide proof of the initial purchase date at the time warranty service is requested, the manufacturing date of the product will be used to determine warranty eligibility.

ABOUT YOUR WARRANTY

We welcome warranty repair and apologize to you for being inconvenienced. Warranty service is available only through servicing dealers authorized by Briggs & Stratton or BSPPG, LLC.

Most warranty repairs are handled routinely, but sometimes requests for warranty service may not be appropriate. This warranty only covers defects in materials or workmanship. It does not cover damage caused by improper use or abuse, improper maintenance or repair, normal wear and tear, or stale or unapproved fuel.

Improper Use and Abuse - The proper, intended use of this product is described in the Operator’s Manual. Using the product in a way not described in the Operator’s Manual or using the product after it has been damaged will void your warranty. Warranty is not allowed if the serial number on the product has been removed or the product has been altered or modified in any way, or if the product has evidence of abuse such as impact damage, or water/chemical corrosion damage.

Improper Maintenance or Repair - This product must be maintained according to the procedures and schedules provided in the Operator’s Manual, and serviced or repaired using genuine Briggs & Stratton parts. Damage caused by lack of maintenance or use of non-original parts is not covered by warranty.

Normal Wear - Like all mechanical devices, your unit is subject to wear even when properly maintained. This warranty does not cover repairs when normal use has exhausted the life of a part or the equipment. Maintenance and wear items such as filters, belts, cutting blades, and brake pads (engine brake pads are covered) are not covered by warranty due to wear characteristics alone, unless the cause is due to defects in material or workmanship.

Stale Fuel - In order to function correctly, this product requires fresh fuel that conforms to the criteria specified in the Operator’s Manual. Damage caused by stale fuel (carburetor leaks, clogged fuel tubes, sticking valves, etc) is not covered by warranty.

* Applies to Briggs and Stratton engines only. Warranty coverage of non-Briggs and Stratton engines is provided by the engine manufacturer.

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California, U.S. EPA, and Briggs & Stratton Corporation Emissions Control Warranty Statement
Your Warranty Rights And Obligations

April 2011

The California Air Resources Board, U.S. EPA, and Briggs & Stratton (B&S) are pleased to explain the emissions control system warranty on your Model Year 2011–2012 engine/equipment. In California, new small off-road engines and large spark ignited engines less than or equal to 1.0 liter must be designed, built, and equipped to meet the State's stringent anti-smog standards. B&S must warrant the emissions control system on your engine/equipment for the periods of time listed below provided there has been no abuse, neglect, or improper maintenance of your engine or equipment.

Your emissions control system may include parts such as the carburetor or fuel injection system, fuel tank, ignition system, and catalytic converter. Also included may be hoses, belts, connectors, sensors, and other emissions-related assemblies.

Where a warrantable condition exists, B&S will repair your engine/equipment at no cost to you including diagnosis, parts, and labor.

Manufacturer's Warranty Coverage:

Small off-road engines and large spark ignited engines less than or equal to 1.0 liter are warranted for two years. If any emissions-related part on your engine/equipment is defective, the part will be repaired or replaced by B&S.

Owner's Warranty Responsibilities:

- As the engine/equipment owner, you are responsible for the performance of the required maintenance listed in your owner's manual. B&S recommends that you retain all receipts covering maintenance on your engine/equipment, but B&S cannot deny warranty solely for the lack of receipts or your failure to ensure the performance of all scheduled maintenance.
- As the engine/equipment owner, you should however be aware that B&S may deny you warranty coverage if your engine/equipment or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.
- You are responsible for presenting your engine/equipment to a B&S distribution center, servicing dealer, or other equivalent entity, as applicable, as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have any questions regarding your warranty rights and responsibilities, you should contact B&S at (414) 259-5262.

Briggs & Stratton Emissions Control Warranty Provisions

The following are specific provisions relative to your Emissions Control Warranty Coverage. It is in addition to the B&S engine warranty for non-regulated engines found in the Operator's Manual.

1. Warranted Emissions Parts

   Coverage under this warranty extends only to the parts listed below (the emissions control systems parts) to the extent these parts were present on the B&S engine and/or B&S supplied fuel system.

   a. Fuel Metering System
      - Cold start enrichment system (soft choke)
      - Carburetor and internal parts
      - Fuel pump
      - Fuel line, fuel line fittings, clamps
      - Fuel tank, cap and tether
      - Carbon canister

   b. Air Induction System
      - Air cleaner
      - Intake manifold
      - Purge and vent line

   c. Ignition System
      - Spark plug(s)
      - Magneto ignition system

   d. Catalyst System
      - Catalytic converter
      - Exhaust manifold
      - Air injection system or pulse valve

   e. Miscellaneous Items Used in Above Systems
      - Vacuum, temperature, position, time sensitive valves and switches
      - Connectors and assemblies

2. Length of Coverage

   For a period of two years from date of original purchase, B&S warrants to the original purchaser and each subsequent purchaser that the engine is designed, built, and equipped so as to conform with all applicable regulations adopted by the Air Resources Board; that it is free from defects in material and workmanship that could cause the failure of a warranted part; and that it is identical in all material respects to the engine described in the manufacturer's application for certification. The warranty period begins on the date the engine is originally purchased.

   The warranty on emissions-related parts is as follows:

   - Any warranted part that is not scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the warranty period stated above. If any such part fails during the period of warranty coverage, the part will be repaired or replaced by B&S at no charge to the owner. Any such part repaired or replaced under the warranty will be warranted for the remaining warranty period.
   - Any warranted part that is scheduled only for regular inspection in the owner's manual supplied, is warranted for the warranty period stated above. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period.
   - Any warranted part that is scheduled for replacement as required maintenance in the owner's manual supplied, is warranted for the period of time prior to the first scheduled replacement point for that part. If the part fails prior to the first scheduled replacement, the part will be repaired or replaced by B&S at no charge to the owner. Any such part repaired or replaced under warranty will be warranted for the remainder of the period prior to the first scheduled replacement point for the part.
   - Add on or modified parts that are not exempted by the Air Resources Board may not be used. The use of any non exempted add on or modified parts by the owner will be grounds for disallowing a warranty claim. The manufacturer will not be liable to warrant failures of warranted parts caused by the use of a non exempted add on or modified part.

3. Consequential Coverage

   Coverage shall extend to the failure of any engine components caused by the failure of any warranted emissions parts.

4. Claims and Coverage Exclusions

   Warranty claims shall be filed according to the provisions of the B&S engine warranty policy. Warranty coverage does not apply to failures of emissions parts that are not original equipment B&S parts or to parts that fail due to abuse, neglect, or improper maintenance as set forth in the B&S engine warranty policy. B&S is not liable for warranty coverage of failures of emissions parts caused by the use of add-on or modified parts.

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Look For Relevant Emissions Durability Period and Air Index Information On Your Small Off-Road Engine Emissions Label

Engines that are certified to meet the California Air Resources Board (CARB) small off-road Emissions Standard must display information regarding the Emissions Durability Period and the Air Index. Briggs & Stratton makes this information available to the consumer on our emissions labels. The engine emissions label will indicate certification information.

The **Emissions Durability Period** describes the number of hours of actual running time for which the engine is certified to be emissions compliant, assuming proper maintenance in accordance with the Operating & Maintenance Instructions. The following categories are used:

Moderate:
Engine is certified to be emissions compliant for 125 hours of actual engine running time.

Intermediate:
Engine is certified to be emissions compliant for 250 hours of actual engine running time.

Extended:
Engine is certified to be emissions compliant for 500 hours of actual engine running time.

For example, a typical walk-behind lawn mower is used 20 to 25 hours per year. Therefore, the **Emissions Durability Period** of an engine with an **intermediate** rating would equate to 10 to 12 years.

Briggs & Stratton engines are certified to meet the United States Environmental Protection Agency (USEPA) Phase 2 or Phase 3 emissions standards. The Emissions Compliance Period referred to on the Emissions Compliance label indicates the number of operating hours for which the engine has been shown to meet Federal emissions requirements.

For engines less than 225 cc displacement.
Category C = 125 hours, Category B = 250 hours, Category A = 500 hours

For engines of 225 cc or more displacement.
Category C = 250 hours, Category B = 500 hours, Category A = 1000 hours

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